

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Cancelled)
2. (Currently Amended) The method according to claim 17, wherein the repository framework metadata ~~intermediate representation~~ is XML (“Extensible Markup Language”).
3. (Cancelled)
4. (Currently Amended) The method according to claim 17 ~~[[3]]~~, wherein the at least one service includes object oriented access, versioning, persistence and change management.
5. (Currently Amended) The method according to claim 2, wherein ~~said the step of~~ transforming the meta-model data application framework into repository framework metadata ~~an intermediate representation~~ is achieved using XSL (“Extensible Style Language”).
- 6-9. (Cancelled)

10. (Currently Amended) The method according to claim ~~18, [[9,]]~~ wherein the at least one service includes versioning, ~~object-oriented access~~~~change management~~, persistence and change management.

11. (Cancelled)

12. (Currently Amended) The ~~system object repository generator~~ of claim ~~19, [[11,]]~~ wherein the ~~visual representation of the application framework metadata meta-model specification~~ utilizes at least a subset of UML (“Unified Modeling Language”).

13-14. (Cancelled)

15. (Currently Amended) The ~~system of object repository according to claim 20, [[14,]]~~ further comprising ~~wherein the~~ a database storing versions of ~~an the~~ application object repository ~~is utilized to provide migration of data stored in the~~ application object repository.

16. (Cancelled)

17. (New) A method for generating a software development repository to reflect extensions in an application framework that supports an application, the method comprising:

in a multi-layer modeling architecture, responsive to the application framework extensions, dynamically modeling an application object repository framework in a first layer

using repository constructs and semantics defined by a repository framework model in a second layer, wherein the repository framework model is defined by a common modeling language in a third layer that also models the application framework in the second layer, wherein the application framework supports the application by providing application constructs and semantics to structure and provide functionality for the application, and wherein the application framework extensions provide additional functionality to the application framework;

generating application framework metadata representing the application framework and occupying the first layer in the multi-layer modeling architecture as meta-model data using the repository constructs defined by the repository framework model in the first layer;

upon said generating, validating the generated meta-model data with respect to the repository framework model constructs;

upon said validating, transforming the meta-model data into repository framework metadata, the repository framework metadata representing an intermediate representation of an application object repository and occupying the first layer of the modeling architecture;

transforming the repository framework metadata into application object repository source files using a predefined transformation template, the source files including a runtime source file and a database schema script; and

generating an application object repository from the application object repository source files, which comprises:

generating an application object repository schema from the database schema script, the application object repository schema defining a relational database structure for storing application metadata representing the application framework extensions; and

compiling the runtime source file to generate an executable component, the executable component providing at least one database service for object-oriented interaction with the stored application metadata in the application object repository.

18. (New) A method for generating a software development repository to reflect changes in an application framework that supports an application, the method comprising:

in a multi-layer modeling architecture, responsive to a change in an application framework, dynamically modeling an application object repository framework in a first layer using repository constructs and semantics defined by a repository framework model in a second layer, wherein the repository framework model is defined by a common modeling language in a third layer that also models the application framework in the second layer, wherein the application framework supports the application by providing application constructs and semantics to structure and provide functionality for the application;;

receiving a UML representation of application framework metadata representing the application framework and occupying the first layer in the multi-layer modeling architecture, the application framework metadata specified utilizing predefined UML constructs and repository constructs defined by the repository framework model in the second layer;

upon said receiving, transforming the application framework metadata into XML repository framework metadata representing an intermediate representation of the application object repository and occupying a first layer of the modeling architecture, the repository framework metadata being a function of the repository framework model and the common modeling language;

transforming the XML repository framework metadata into application object repository source files using a predefined XSL transformation template, the source files including a runtime source file and a database schema script; and

generating an application object repository from the application object repository source files, which comprises:

generating an application object repository schema from the database schema script using OSQL (“object-oriented SQL”), the application object repository schema defining a relational database structure for storing application metadata representing application development objects and the relations between the application development objects compliant with the application framework changes; and

compiling the runtime source file to generate an executable component, the executable component providing at least one database service for object-oriented interaction with the stored application metadata in the application object repository.

19. (New) A system for generating an object repository to reflect changes in an application framework, the system comprising:

an interface to receive a visual representation of application framework metadata representing an application framework;

a processor; and

a memory, coupled to the processor, storing instructions adapted to be executed by the processor to:

in a multi-layer modeling architecture, responsive to a change in an application

framework, dynamically model an application object repository framework in a first layer using repository constructs and semantics defined by a repository framework model in a second layer, wherein the repository framework model is defined by a common modeling language in a third layer that also models the application framework in the second layer, wherein the application framework supports an application by providing application constructs and semantics to structure and provide functionality for the application;

transform the received application framework metadata into XML repository framework metadata representing an intermediate representation of the application object repository and occupying a first layer of the modeling architecture, the repository framework metadata being a function of the repository framework model and the common modeling language;

transform the XML repository framework metadata into application object repository source files using a predefined XSL transformation template, the source files including a runtime source file and a database schema script; and

generate an application object repository from the application object repository source files, which comprises:

generating an application object repository schema from the database schema script using OSQL (“object-oriented SQL”), the application object repository schema defining a relational database structure for storing application metadata representing application development objects and the relations between the application development objects compliant with the application framework changes; and

compiling the runtime source file to generate an executable component, the executable component providing at least one database service for object-oriented interaction with

the stored application metadata in the application object repository.

20. (New) A system to generate an object repository to providing generic migration of previously stored data in a software development repository to reflect changes in an application framework, the system comprising:

an interface to receive application framework metadata representing an application framework;

a processor; and

a memory, coupled to the processor, storing instructions adapted to be executed by the processor to:

in a multi-layer modeling architecture, responsive to a change in an application framework, dynamically modeling an application object repository framework in a first layer using repository constructs and semantics defined by a repository framework model in a second layer, wherein the repository framework model is defined by a common modeling language in a third layer that also models the application framework in the second layer, wherein the application framework supports an application by providing application constructs and semantics to structure and provide functionality for the application;

transforming the received application framework meta-data into repository framework metadata representing an intermediate representation of the application object repository and occupying a first layer of the modeling architecture, the repository framework metadata being a function of the repository framework model and the common modeling language;

transforming the repository framework metadata into application object repository source

files using a predefined transformation template, the source files including a runtime source file and a database schema script;

generating an application object repository from the application object repository source files, which comprises:

generating an application object repository schema from the database schema script, the application object repository schema defining a relational database structure for storing application metadata representing application development objects and the relations between the application development objects compliant with the application framework changes; and

compiling the runtime source file to generate an executable component, the executable component providing at least one database service for object-oriented interaction with the stored application metadata in the application object repository; and

transforming the previously stored data into a format compatible with the generated application object repository utilizing the repository framework metadata.

21. (New) A method for providing generic migration of previously stored data in a software development repository to reflect changes in an application framework, the method comprising:

in a multi-layer modeling architecture, responsive to a change in an application framework, dynamically modeling an application object repository framework in a first layer using repository constructs and semantics defined by a repository framework model in a second layer, wherein the repository framework model is defined by a common modeling language in a third layer that also models the application framework in the second layer, wherein the

application framework supports an application by providing application constructs and semantics to structure and provide functionality for the application;

receiving application framework meta-data representing the application framework and occupying the first layer in the multi-layer modeling architecture, the application framework metadata specified utilizing repository constructs defined by the repository framework model in the second layer;

upon said receiving, transforming the application framework meta-data into repository framework metadata representing an intermediate representation of the application object repository and occupying a first layer of the modeling architecture, the repository framework metadata being a function of the repository framework model and the common modeling language;

transforming the repository framework metadata into application object repository source files using a predefined transformation template, the source files including a runtime source file and a database schema script;

generating an application object repository from the application object repository source files, which comprises:

generating an application object repository schema from the database schema script, the application object repository schema defining a relational database structure for storing application metadata representing application development objects and the relations between the application development objects compliant with the application framework changes; and

compiling the runtime source file to generate an executable component, the

executable component providing at least one database service for object-oriented interaction with the stored application metadata in the application object repository; and

transforming the previously stored data into a format compatible with the generated application object repository utilizing the repository framework metadata.

22. (New) The method of claim 17, wherein the application object repository source files are C++ files.

23. (New) The method of claim 18, wherein the application object repository source files are C++ files.

24. (New) The method of claim 21, wherein the application object repository source files are C++ files.